DOCUMENT RESUME

ED 089 465 88 EA 006 076

AUTHOR	Hunt, Lester W.; Burr, Donald F.
TITLE	Research, Development & Dissemination in Educational Planning & Educational Facilities Planning. Project SIMU-School.
INSTITUTION	Santa Clara County Office of Education, San Jose, Calif.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
REPORT NO	RR-1
BUREAU NO	BR-72-8111
PUB DATE	Mar 74
GRANT	OEG-9-72-0063(290)
NOTE	45p.; Part I: A National Center for Educational Planning. Part II: National Center for Educational Planning (Services, Operation and Significance); Related documents are ED 079 858-859 and ED 083 692
EDRS PRICE	MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS	Computers; Educational Development; Educational Facilities; Educational Needs; *Educational Planning; *Educational Research; *Facility Planning; Futures (of Society); Mathematical Models; *Program Descriptions; Simulation
IDENTIFIERS	Elementary Secondary Education Act Title III; ESEA Title III; National Center for Educational Planning; *Project Simu School

ABSTRACT

The Simu-School Program and the National Center for Educational Planning were conceived because of the need for (1) expertise in educational planning, (2) a system to collect and assemble the vast amount of knowledge concerning education, (3) community involvement in planning, and (4) a system to accurately interpret today's data in planning for the future. Through a coordinated system of components, a National Center would pull together and tackle these urgent needs and accumulate and distribute the knowledge and information needed for improved educational planning. A national information Simu-School Program would develop and implement effective educational planning using computer simulation, gaming, and mathematical modeling as primary tools; train educational planners to solve a variety of planning problems in a variety of community environments; test alternative solutions to planning problems in a variety of community environments; and forecast the kinds of problems that may arise in the future so that planners can begin to deal with them now. (Author/DN)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED 08

RESEARCH, DEVELOPMENT & DISSEMINATION IN EDUCATIONAL PLANNING & EDUCATIONAL FACILITIES PLANNING

Lester W. Hunt
and
Donald F. Burr

EA 006 076

Santa Clara County Component
45 Santa Teresa
San Jose, California 95110

PROJECT SIMU-SCHOOL

CONTENTS

RESEARCH, DEVELOPMENT & DISSEMINATION
IN
EDUCATIONAL PLANNING AND EDUCATIONAL FACILITIES PLANNING

		Page
I.	Preface	i
II.	Introduction	iii
III.	National Center--Functions, Roles & Relationship	
	Historical Development of "Simu School"	1
	Simu-School Organization	1
	A Proposed Future Plan	7
IV.	National Center--Services, Operation & Significance	
	Introduction	14
	Service Provided	15
	Management & Operation	18
	Relationships	21
	Significance	24
V.	Appendices	
	Task Force	27
	Directory, Project Simu-School	28
	Publications	31

A NATIONAL CENTER FOR EDUCATIONAL PLANNING

RESEARCH REPORT NUMBER ONE

OF

PROJECT SIMU-SCHOOL: SANTA CLARA COUNTY COMPONENT

Sponsored by a Grant From
Department of Health, Education and Welfare
U.S. Office of Education
Title III, Section 306
Elementary and Secondary Education Act

Grant OEG 9-72-0063 (290)
Project No. S0010SW

Santa Clara County Office of Education
Glenn W. Hoffmann, Superintendent
45 Santa Teresa Street
San Jose, California 95110

March, 1974

PREFACE

Establishment of the Santa Clara County (California) Component in June, 1972, began the realization of the "network" of components envisioned when the Chicago Component began in 1971--linking two development centers with the coordination functions of the Council of Educational Facility Planners, International. The vision of the planners of Simu-School dictated careful planning of the relationships among the various components and particularly with a National Center for Educational Planning.

To facilitate this planning, the Director of the Santa Clara County Component was commissioned to examine these relationships and prepare tentative plans for formalizing the network. Part I of this paper results from interviews with most of the members of the Task Force (see Appendix A, p. 27) and was developed as a "working plan" for use in proposals for funding the National Center. Part II, prepared by Donald F. Burr, Chairman of the National Advisory/Planning Board, further elucidated the functions and significance of the National Center. Neither document was intended for publication at the time of writing.

Recent continued interest in Simu-School and the National Center for Educational Planning has suggested, however, that wider dissemination of the plans for this "network" will be beneficial to the work of educational planners and the recipients of the products of their efforts. Hence the decision, in January, 1974, to publish plans made in 1972.

Introductory material in this paper was prepared by Dr. Dwayne E. Gardner, Executive Director, CEFP. Responsibility for materials presented in each section is assumed by the writer of that specific section and even though slight inconsistencies occur, the central theme of the National Center for Educational Planning remains constant throughout the document.

At this writing, each component (Chicago, Santa Clara County, Dallas, and Ohio State University) is at work developing and testing planning techniques and providing assistance to constituent school districts in the process. Publications which have been produced for distribution are listed in Appendix C, p. 30. For further information concerning the work of each component or Simu-School in general, the reader is referred to:

Council of Educational Facility Planners, International
29 West Woodruff Avenue
Columbus, Ohio 43210

Lester W. Hunt, Director
Project Simu-School: Santa Clara County Component
March, 1974

The project presented or reported herein was performed pursuant to a grant from the U.S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

INTRODUCTION

Problem - Modern educational planning is an enormously complex, tedious process involving simultaneously the frequently conflicting requirements of the legal, social, political, and economic aspects of our society. Yet such planning in most school districts, colleges and universities is performed in a haphazard way with fragmentary information (based on little real research) by people untrained in planning skills who work at planning only part time; moreover, millions (and even billions) of dollars are budgeted by individual school districts and institutions of higher education in just this manner. Although educators have long desired to improve their ability to plan, they have not had the use of the sophisticated management and evaluation tools of operations research now available to businessmen. Yet society demands that these planners continuously improve the educational opportunities available to all people in a community while at the same time society restricts the resources available for education.

The Challenge - Perhaps no challenge facing education today is greater than the need to plan adequately for the future. Effective educational planning is, however, an elusive process.

To make planning work within a community, several conditions must be met:

--All elements of the community must be involved in the decision-making process.

--Relevant factors and variables in the socio-economic-political-legal world surrounding the school sytem must be considered.

--The nature of the learning/teaching process within the existing educational system as well as alternative models of teaching and learning must be known and understood.

Educational planning takes place within a rapidly changing technological society, and current available data must be evaluated if planners are to accurately predict the shape of the educational world several decades in the future. The needs for effective planning are great, and there exists in our country an obvious and long-overdue need for a coordinated system to serve those who engage in educational planning.

There is a vast amount of knowledge concerning education. In most cases, however, this information is in small pieces and widely scattered like a giant jigsaw puzzle. It is essential to good planning that a system be created which can collect this knowledge and assemble it so it can be used effectively in the planning processes for education.

To further complicate the issue of educational planning, shared decision-making is clearly a condition of our times, and improved methods of community involvement in this process are essential. In this regard, perhaps the most difficult task of all is to be able to use the input from a wide variety of people and put it together in a meaningful plan which will advance and improve education and, most of all, prepare it for the future.

The overall management of a planning experience requires the guidance of individuals skilled as expert educational planners. The magnitude of the planning tasks now existing and those we will be facing in the future, will be impossible to cope with without such skilled professional educational planners. A portion of the learning experience for these individuals must be an extensive engagement with real world planning.

It is to these needs that Simu-School and the National Center for Educational Planning are directed. Through its coordinated system of components, the National Center will pull together and tackle the above-stated urgent needs. It will accumulate and distribute the knowledge and information needed for improved educational planning. It is, itself, an example of planning. This is the true significance of the National Center for Educational Planning.

Objectives - A national program called Simu-School has been developed in response to the dilemma of educational planners. Project Simu-School is an integrated part of the proposed Center for Educational Planning. Its purposes are: (1) developing and implementing effective educational planning using computer simulation, gaming, and mathematical modeling as primary tools; (2) training educational planners in solving a variety of planning problems in a variety of community environments; (3) testing alternative solutions to planning problems in a variety of community environments; and (4) forecasting the kinds of problems that may arise in the future so that planners can begin to deal with them now using Simu-School developed techniques.

An early decision in the Simu-School Project was that it must be developed on the "firing line" of education to give assurance that the processes and tools developed would be those desired and sought by all persons involved in educational planning. Neither time nor funds would permit involvement in a "pie in the sky" idea which might, or might not, be usable by those planning for education, and project development was based on this premise.

The National Center for Eduational Planning will serve as a focal point for assembling the work of the various developmental components and collecting a variety of services and information critical to educational planning. The National Center will then, as the central agency, make the assembled knowledge and products available to the total educational community. It is almost a certainty that the National Center will become one of the more important places in America concerning education.

Procedures - Project Simu-School is a planned nationwide network of developmental components, some permanent and some mobile, charged with the research, development, and implementation of new planning processes; limited training and dissemination activities also accrue to these components. Advantage will be taken of the sophisticated tools already being utilized by private industry, whose methods surpass educational planning techniques in the area of management science technology and comprehensive planning through computer simulation and modeling. Extensive data bases will be designed and implemented as part of this research effort.

Results to be Produced/Future Implications - In conjunction with the developmental components, the National Center would provide the means by which management science technology will be applied to educational planning to improve the quality of education and reduce its cost. A computerized Planning Information System will be created at the National Center to function as a research data base for all aspects of educational planning research. Through its affiliation with such organizations as the Educational Facilities Laboratories, Inc.; the Council of Educational Facility Planners, International; the Society for College and University Planning; the American Institute of Architects; the American Society of Landscape Architects and others, the citizens of the United States will realize immediate benefits from the National Center because: (1) new educational planning processes may be researched and piloted in school districts and colleges and universities; (2) computer models and educational planning tools created by Simu-School will be made available for classroom use in training future educational managers and planners; (3) planning tools distributed through the nationwide network of Simu-School components may be funneled through the National Center to all school districts and colleges and universities; and (4) candidates for degrees in educational administration and planning may intern in the National Center, as well as component centers.

Dwayne E. Gardner
Executive Director
Council of Educational Facility
Planners, International

National Center for Educational and Facility Planning

Functions, Roles, and Relationships of Components of Project Simu-School

September 1972

A Position Paper

by

L. W. Hunt

Research Report Number One
of
Simu-School: The Santa Clara County Component
Sponsored by a Grant From
U. S. Office of Education
Under Title III, Section 306 of the
Elementary and Secondary Education Act

Grant #OEG 9-72-0063 (290)
Project #728111

Santa Clara County Office of Education
45 Santa Teresa
San Jose, California 95110

I. Historical Development of "Simu-School"

Recognizing the need for effective tools for comprehensive planning for schools in a community, a task force organized by the Committee on Architecture in Education of the AIA and the Council of Educational Facility Planners, assisted by a panel of consultant advisors, formulated a plan for the use of simulation techniques in educational planning This plan envisioned the creation of a national center for educational facility planning, with subcenters which could involve all of the people in a particular community in planning the future of education in their community.

Funding which became available from the United States Office of Education under Title III, Sec. 306 of the Elementary and Secondary Education Act allowed selected local education agencies to become participants in the development of the center. Project Simu-School began as a single component (Chicago Board of Education) and expanded to include additional local units (Santa Clara County Office of Education and Dallas Independent School District) each financed under separate but related grants. Each component is responsible to a local education agency for administration and to some extent for the particular focus of the efforts of the local unit.

As initially envisioned, component units of Project Simu-School were to represent diverse publics through the local education agency to which the units are administratively responsible. Assignment of responsibilities for project development was based on: (1) demonstrable need for research on specific topics related to the development of planning processes; (2) availability of data; (3) availability of professional resources (expertise); and (4) special interest of local administrative organizations.

Central coordination of the efforts of local components toward the objective of establishing a national center was planned through the organization of a national advisory/planning board to assist the local units.

II. Simu-School Organization

A. The Chicago Component

1. Goals and Objectives

Two major goals were assumed by the Chicago component: (1) improvement of educational planning processes used by the Chicago Board of Education; and (2) contributions to the development of the national center for educational facility planning. Participation by Chicago was based on a plan to establish a Center for Urban Educational Studies, to serve for training of personnel and for planning activities for the Board of Education of the City of Chicago. Subprojects were selected to provide the necessary base information for the development of the center, planning processes and techniques, and a setting in which planning could be carried out.

2. Tasks

a. Year One (1971-72) - Major tasks assumed:

(1) A critical review of the educational planning process in order to undertake an intensive study of the methodological and informational requirements for more effective planning;

(2) Identification of the structure of a school district simulation model for estimating the demand for educational services;

(3) The development of a prototype "game" for use in illustrating the process of educational facilities planning;

(4) A preliminary development of a facilities planning subsystem of a Management Information System; and

(5) The development of position papers on some key aspects of facilities planning; e.g., student flows. cost-benefit analysis of alternative facility solutions, allocation of mobile units, charettes, program evaluation techniques, etc.

b. Year Two (1972-73) - Major tasks projected:

With a slightly modified staff pattern and the appointment of a full-time Director and a Training Officer, the Chicago Component is funded for an 18-month period. Based on the accomplishments of year one and the original objectives of the Chicago Component, the following major activities are projected in year two:

(1) Development, including designing, remodeling and furnishing of a prototype planning center;

(2) Initiation of a training component which will provide for community involvement in the planning process as well as for training of future planners;

(3) Preliminary development of a Knowledge Center containing planning literature as well as visual aids materials concerned with planning;

(4) Continued development of a facility planning subsystem of a Management Information System:

(5) A feasibility study for the application of computer simulation models to the planning of educational facilities; and

(6) Preparation of staff development studies on some key aspects of educational facilities planning. (Specific areas for exploration to be coordinated with other components.

B. The Santa Clara County Component

1. Goals and Objectives

Two broad goals were adopted by the Santa Clara County Office of Education in the establishment of a component center for Project Simu-School: (1) improvement in educational facility planning in the school districts of the County; and (2) development of planning processes which could be adapted for use by the national center. Representing an intermediate administrative unit in a rapidly changing area encompassing population centers ranging from rural to urban in development, Santa Clara County was envisioned as a center which would complement the major urban center (Chicago). The Santa Clara County Component had three major assignments: (1) to develop computer capability to expand the planning model(s) developed by Chicago; (2) to build a data base to be used to test the planning processes which were to be incorporated into the prototype planning center and (3) to design planning processes to be used in communities changing from rural to urban characteristics.

2. Task - Major tasks projected:

a. Develop a proposed "national system" for educational and facility planning in cooperation with CEFP;

b. Develop one or more planning process models and test in at least two school communities in Santa Clara County using historical base data and factors which study shows to have affected educational programs;

c. Develop computer software to massage data to provide planning information;

d. Prepare staff development studies on some key aspects of educational planning; and

e. Plan and prepare for the continuation of a permanent Educational Planning Center in Santa Clara County.

C. The Dallas Component

1. Goals and Objectives

Within the broad goals of Project Simu-School--providing tools for use by educational planners--Dallas Independent School District adopted the major goal of developing simulation models of relevant aspects of curriculum development, student loading, staff and facility needs, and allocation of financial resources, utilizing previously established expertise in computer data management.

2. Tasks - Major tasks projected:

a. Design the "building blocks" of a computer-based model of an LEA to serve the planning needs of an LEA;

b. Design and develop a simulation model which will predict the number and cost of teachers by individual schools and individual courses;

c. Design, develop and test a prototype computerized student counseling and scheduling system;

d. Design, develop and implement a computer-based food management system; and

e. In cooperation with other components, design and test a data system for comprehensive educational planning.

D. The Ohio State Component

Proposed to be established in conjunction with a school district in Ohio, the Ohio State Component adopted the objective of developing methodologies for use in comprehensive educational planning for "New Town" developments in which the educational community had not yet been established. Funded only by Ohio State University, personnel from the Ohio Component participate with other components in development of planning techniques.

E. The National Advisory/Planning Board

1. Goals and Objectives

The broad goal of the National Advisory/Planning Board is to improve educational planning for facilities in all communities. The major objective within this goal is the establishment of a national center for educational facility planning, with component centers to facilitate effective communications among all users of planning techniques and encourage the development of planning techniques which can:

a. Accommodate all data relevant to the planning of and for educational programs in a community;

b. Free the participant, not restrict him;

c. Show ramifications of combined decisions;

d. Increase problem-solving skills;

e. Provide a way to reach out to expand one's experience to discover all the options available;

f. Effectively compress planning time;

g. Permit new knowledge and new techniques to be incorporated easily;

h. Permit users to follow paths that the designers had not foreseen;

i. Adapt to widely varying conditions and circumstances;

j. Intimately involve all participants, including the users and recipients of the products of educational effort;

k. Serve as learning experiences and training devices for planners of varying levels of previous experience; and

l. Serve as sophisticated tools for use by professional planners in solving problems encountered in planning.

2. Task

Created as the advisory/consultative body to assist in the development of Project Simu-School, the National Advisory/Planning Board assumes the following tasks:

a. Give consideration to, and recommendations concerning, the goals and priorities in Project Simu-School (national and local components);

b. Coordinate the activities of the components toward the achievements of the objectives of the project;

c. Assist in planning and evaluation of the work of all components;

d. Study the formation of new components and/or planning centers;

e. Seek sources of continuation and/or expansion funds for the project; and

f. Assist in dissemination of information about the project and the results of the work of the components.

3. Memberships

Members are appointed to the National Advisory/Planning Board by the Board of Directors of the Council of Educational Facility Planners, to serve for three years. The Board is composed of nine persons who have proven expertise in education or the educational planning process, selected according to qualifications in the following areas:

a. Architecture;

b. Education;

c. Educational planning;

d. Community planning;'

e. Data management; and

f. Industrial development.

Within the nine-member board are representatives of the local components, minority groups, and various geographic regions. Individuals may meet the qualifications of one or more of the categories.

F. Council of Educational Facility Planners (CEFP)

1. Goals and Objectives

CEFP has as its major goal the improvement of educational and educational facility planning. Objectives of the programs adopted by CEFP to achieve the major goal include:

a. Improve educational planning processes through development of new techniques for planning;

b. Collect and disseminate useful information about education and educational planning;

c. Provide training/experience opportunities for planners;

d. Establish a national or international network of planning centers to utilize all planning resources available;

e. Provide effective management of resources; and

f. Seek sources of support for planning activities.

2. Tasks

Within Project Simu-School, CEFP undertakes the following tasks:

a. Appointment of members of the National Advisory/Planning Board;

b. Management of operational functions of the Board, including calling meetings, etc.;

c. Review, publication and dissemination of documents produced by Simu-School components;

d. Development of plans for initiation of the National Center for Educational and Facility Planning;

e. Securing of funding for continuation and expansion of the network of planning components; and

f. Provision of leadership in identification of appropriate personnel to conduct special studies.

III. A Proposed Future Plan

A. Need for Research-Development-Dissemination

The need for a coordinated system to serve those who engage in educational and educational facility planning has been identified and documented in numerous publications and research papers. Summarized, the problems and needs may be stated as follows:

1. Problems facing educational planners

   a. Mission: the inability of school systems (and people) to adapt to rapid change which is a central fact of our time;

   b. Quality: too frequent examples of the failure of schools to provide the educational program needed by learners;

   c. Cost: soaring costs of providing, operating, and maintaining traditional school systems; and

   d. Planning: lack of information, tools, skills, and methodologies to produce timely diagnoses of problems, timely responses, and to weigh issues and resolve conflicts.

2. Needs identified to assist in resolving these problems

   a. Widespread community participation to:

      (1) Facilitate redefining of goals;

      (2) Speed analysis of problems;

      (3) Open channels of communication which can create common understandings and open alternative means for resolving conflict.

   b. Skill development by participants in educational planning to:

      (1) Define problems;

      (2) Establish priorities;

      (3) Process data;

      (4) Devise tests of options against their costs;

(5) Evaluate formidable amounts of information;

(6) Find and use tools;

(7) Work with many people with divergent views.

c. Develop tools to:

(1) Secure and use learning strategies;

(2) Gather information;

(3) Process data;

(4) Communicate ideas;

(5) Build new tools;

(6) Develop a "plan for planning."

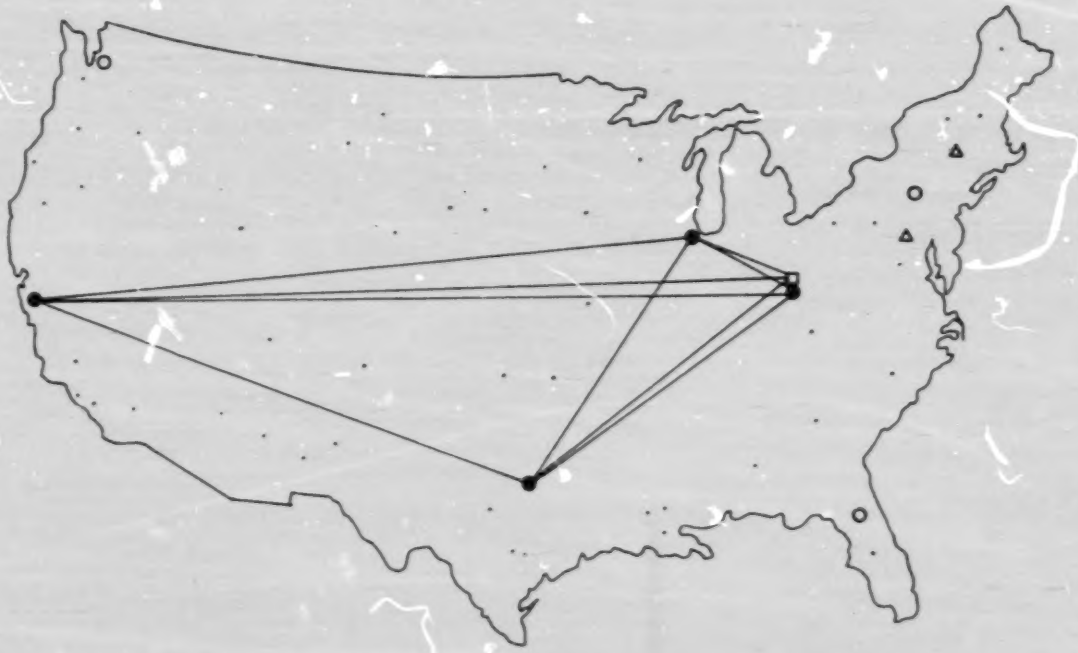
Many of the tools and skill-building techniques have been developed and are in use in planning programs. Of critical importance, however, is the systematic compilation of information about processes which are being used, testing of techniques which are effective, training planners to use them, and making available to users the results of the research and development activities being carried on.

A proposed approach to meeting these needs of educational planners is the formation of an international voluntary grid system to provide an exchange of information and sharing of developmental tasks.

RESEARCH, DEVELOPMENT & DISSEMINATION

in

Educational & Educational Facilities Planning



- ● 1. The Chicago "Planning Center" Component
- ● 2. The Santa Clara "Development" Component
- ● 3. The Dallas "Computer" Component
- ● 4. The Ohio State "Training" Component
- □ 5. The National Center for Educational Planning
- ○ 6. Future Components
- · 7. Future Participating Members
- △ 8. Support Members

B. An International Voluntary Grid System

1. Goals and Objectives

The major goal of the system will be the improvement of educational and facility planning through the coordination of efforts of educational planners. Objectives will include:

a. Establishment of component centers for research, development and testing of planning techniques;

b. Inclusion of existing educational planning systems as contributing components;

c. Receiving from, or disseminating to participating members information about, or assistance in, educational and facilities planning;

d. Establishment of a National (or International) Center for Educational and Facilities Planning to serve and coordinate the efforts of component centers and participating members; and

e. Provision of professional and financial support.

2. Structure and Tasks

a. Component Centers:

Component centers are educational and/or facility planning centers functioning within educational or planning agencies which agree to general or specific commitments to the cooperative efforts of the "system." Each component center is financed through local agency funding, grants, and/or contracts, generally independent of the National Center.

Component centers may undertake specific research, development or dissemination tasks to provide services which are deemed beneficial to the coordinated efforts of the entire grid system. Information, training, and professional assistance available within the grid system will be provided to the component centers.

b. Participating Members:

Participating members are those educational and/or facility planning agencies who desire to utilize the services provided within the grid system without a commitment to participate in the research, development or dissemination functions of the system. Membership in the grid system will be in accordance with procedures established by the National Advisory/Planning Board.

c. National Center for Educational and Facility Planning:

The national center is the coordinating/management core of the international grid system.

(1) Goals and Objectives

Within the major goal of the international grid system, the specific objectives of the National Center are to:

(a) Assess needs of educational/facility planners;

(b) Establish a network of component centers and participating members to conduct research, development and dissemination activities;

(c) Establish and operate an information search and dissemination service to serve all participants in the grid system;

(d) Improve the knowledge and skills of educational/facility planners through training or retraining programs;

(e) Seek funding for and participation in the program of the grid system; and

(f) Coordinate the functions of component centers to achieve the objectives of the open grid system and maintain neutrality in data treatment to allow institutions to be responsive to their publics.

(2) Tasks

The tasks of the National Center and those of the component centers are closely interrelated. Functions to be assumed within the grid system and the tasks to be performed by the National Center and component centers are shown in the following tabulation.

Tasks of Component Centers	Functions	Task of National Center
a. -Research, survey, provide data	a. -Assess needs of educational/ facility planners	a. -Collect data -Seek solutions to problems -Coordinate research
b. -Conduct research, development, dissemination activities at the local level -Conduct planning activities	b. -Establish network of component centers and participating members to conduct research, development and dissemination activities	b. -Encourage commitment and participation -Coordinate research -Contract for research
c. -Provide information on local projects to center -Seek information from other sources -Provide local dissemination	c. -Information search and dissemination	c. -Establish storage-retrieval system -Abstract, digest materials -Evaluate information -Provide wide dissemination through publications, etc.
d. -Orient and train local participants in planning	d. -Training and retraining of educational/facility planners	d. -Assess state of the art -Develop plans for training planners -Conduct seminars -Provide internships for planners
e. -Manage local funding (including contracting, etc.)	e. -Seek Funding	e. -Develop relationships with outside agencies (government and private) -Contract with participating members -Become self-supporting through services contracted
f. -Assume responsibility for tasks as designated by National Center	f. -Coordinate the functions of component centers	f. -Manage interrelationships to achieve compatibility and completeness of efforts by components
g. -Assist in local planning project -Develop/test planning techniques -Evaluate planning projects	g. -Educational/facility planning	g. -Provide professional/technical assistance as requested by component centers or participating members

(3) Structure

(a) National Advisory/Planning Board: The Board organized for Project Simu-School assumes similar functions for the National Center (see Section II, Paragraph C.1., Goals and Objectives).

(b) Board of Directors: As an operating function of CEFP, the National Center for Educational and Facility Planning is under the administrative direction of the Board of Directors of CEFP.

(c) Management: Under the direction of the Executive Director of CEFP, the Director of the National Center administers the program of the Center. Staff responsible for the functions performed in the National Center will be determined by the contractual arrangements negotiated with component centers and policies established by the National Advisory/Planning Board.

Operational coordination among all components will be achieved through a Coordinating Council composed of the Directors of all component centers, the Director of the National Center, a representative of the National Advisory/Planning Board, and representatives of the support members (funding agencies).

(d) Support Members: Support members are the agencies from which funding has been received to support the development and initial operation of the National Center. A representative of each support member is included in the membership of the coordinating council.

PART II

NATIONAL CENTER FOR EDUCATIONAL PLANNING

(SERVICES, OPERATION AND SIGNIFICANCE)

PROJECT SIMU-SCHOOL

Excerpts from

A Position Paper

by

Donald F. Burr

October, 1972

Simu Schools: Santa Clara County Component
Sponsored by a Grant from
U.S. Office of Education
Under Title III, Section 306 of the
Elementary and Secondary Education Act

Grant OEG 9-72-0063 (290)
Project 728111

Santa Clara County Office of Education
45 Santa Teresa Street
San Jose, California 95110

CONTENTS

Introduction

Service Provided

Management and Operation

Relationship to Existing and Future Simu-School Components

Significance of the National Center

INTRODUCTION

One obvious and urgent need of educational planners is to find improved methods of collecting and communicating the vast amount of knowledge concerning education. To achieve the most in educational planning, all knowledge and options must be at the fingertips of the planners.

Included in the design of the Simu-School project are improved methods to bridge the knowledge and communication gaps faced by educational planners. Simu-School's primary goal is to provide the educational community with revitalized processes for educational planning.

The purpose of this paper is to describe the Simu-School project's National Center for Educational Planning, its services, how it functions and how it will be organized to serve educational planning. The discussion presented is intended to function as a starting point in development of the National Center.

Simulation techniques have long been used in government and private industry for planning purposes, and adaption of the simulation techniques is a significant part of the Simu-School concept. Also included in the project, though, are many other aspects of planning.

An early decision in the Simu-School project was that it must be developed on the "firing line" of education to give assurance that the processes and tools developed would be those desired and sought by all persons involved in educational planning. Neither time nor funds would permit involvement in a "pie in the sky" idea which might, or might not, be usable by those planning for education, and project development was based on this premise.

The initial component of the Simu-School project started in the Chicago School System. This was followed by a second component in Santa Clara County, California, and a third project in Dallas, Texas. Other developmental component projects are envisioned in the immediate future. Each of these components will perform different functions, and these will ultimately be assembled to provide various tools and a combined process for improved educational planning. The units currently underway will remain as permanently anchored branches of the Simu-School project. Mobile versions of this project are also planned to enable Simu-School to bring its services to all segments of education.

The National Center for Educational Planning will serve as a focal point for assembling the work of the various developmental components and collecting a variety of services and information critical to educational planning. The National Center will then, as the central agency, make the assembled knowledge and products available to the total educational community. It is almost a certainty that the National Center will become one of the more important forces in America concerning education.

Due to the important role the National Center will play in formulating educational planning, it is imperative that careful judgment and great care be exercised in setting forth the guidelines for this important service.

SERVICE PROVIDED

The commitment of this Center will be to total educational planning. It would be erroneous to assume that the Simu-School project and the Center (which is a part of it) will be limited to facilities planning. The Simu-School project is based on the premise that educational facilities are one of the results of good planning and not a starting point. Thus, Simu-School looks at the whole of educational planning, considering facilities planning as only a segment of the process.

The services which will be provided by the National Center for Educational Planning can be grouped into fourteen basic areas. Like planning itself, there will be many branches which will spread out from each of these services. The goals presently envisioned are:

(1) To Store Educational Knowledge:

- There is a need to develop a knowledge center because much of the vast knowledge concerning education and educational planning is widely scattered like a giant jigsaw puzzle. A massive effort is needed to pick up the pieces and assemble them in a usable form.

- The knowledge center will have a primary function of assembling information concerning planning and education, and storing it in various forms so it is readily available to all in need of such information. Storage of the information will be in a variety of forms. This will include, but not be limited to, a library for publications, multi-media techniques and computerized storage.

(2) To Function as a Multi-Communications Center:

- The Center will utilize the most up-to-date communication methods available. Collecting knowledge will not be of much value unless it includes effective media to communicate it to those who need such information.

- As noted earlier, the Simu-School project will include a network of permanently anchored planning centers. The National Center for Educational Planning will become the hub of the communications network to transmit critically needed information to these centers, as well as receive information from them. The National Center will also be the hub of communications for mobile components of Project Simu-School.

- The handling of information concerning education and educational planning will be a vital aspect of the Center. It will provide a place to store newly-learned knowledge concerning education and then make it available to all those involved in educational planning in our country.

(3) To Coordinate Research and Development:

- Another function of the Center will be to serve as a coordinating agent for research and development. The Center's involvements and commitments will make it a significant source of help for individuals, organizations and institutions that are engaged in critically needed research and development.

- In conjunction with this service, the Center will be able to watch for cases where overlap occurs--to avoid repeating the same thing that someone else has already done.

- As previously state, further developmental projects are envisioned for Project Simu-School. The National Center will function as a coordinating agent for this work.

(4) To Provide A Model for Planning:

- The largest commitment of physical space in the Center will be for a place for people to become involved in the process of planning. This will not be limited to a film or lecture, for example, but instead, will be a total involvement of people in the process of planning for education. The service will be available to all persons interested in planning--ranging from the lay person to the most sophisticated educational planner.

- Utilizing role playing and compression of time through simulations, planning experience will range from theoretical exercises to those involving real situations. The involvement in planning at the National Center could last for a few hours or up to several days, depending upon the needs of the users.

(5) To Enhance Community Involvement in Planning:

- The planning model at the Center will be a major thrust in the endeavor to provide more effective ways to involve lay people in educational planning. The Center will constantly explore better ways to conduct planning in the "shared decision-making era" of our times.

(6) To Assist in Training Future Educational Planners:

- Due to its involvement in planning, the Center will also become a resource for learning about and becoming involved in planning techniques and processes. Thus, it will provide a service as a training ground for future planners. Involvements for such people would range from a few days to an internship lasting an extended period of time.

- The Center will constantly probe the future and, thus, will become a resource to learn how to anticipate the future through planning.

(7) To Become a Research Fellowship Center:

- The mobile planning versions of the Center will take planning information to members of the educational community who are unable to travel to the Center itself or do not have permanently anchored components in their area.

  It is envisioned that, to a large extent, this endeavor can become a fellowship program in the sense that it will be an extension of the educational pursuits of those individuals desiring to become educational planners. Through the fellow programs of the Center, student planners will be able to conduct portions of their learning in real world conditions.

(8) To Stimulate Components:

- The Center will represent the best in planning and will direct constant efforts to foster better planning. Under the Center's leadership as a collector of information and developer of new planning techniques and processes, components will receive stimulation for their efforts.

(9) To Develop Planning Packages:

- It will be the responsibility of the Center to prepare information on planning in packages suited to the needs of the various users.

(10) To Serve as a Contracting and Coordinating Center:

- The Center will provide a place where ideas concerning planning can be brought and contractual arrangements made for their development.

  Ideas which originate on the "firing line" of education can be forwarded to the Center through component projects or brought directly to it.

(11) To Evaluate Research and Product Development:

- The Center will stimulate research and product development in the field of educational planning as a result of its operations. It will also provide a place to evaluate these same research efforts and products.

(12) To Provide a Source of Planning Talent:

- The Center will be a place where those in need of planning expertise can seek assistance. Personnel at the Center will either be able to provide the necessary talent or refer the individual to it.

(13) To Supply Mobile Versions of Simu-School Components:

- The facilities of the Center will not be limited to the Center itself and other permanently anchored units. A variety of mobile

versions will be developed that can be sent to assist any segment of the educational community requesting planning assistance.

(14) To Secure Funds for Continuing Program:

- There must be proper business management of the Center's services so it can sustain its operation from a financial standpoint. In conjunction with sound business management, there must be a continuing search effort for funds to maintain the Center and its services.

MANAGEMENT AND OPERATION

The Council of Educational Facility Planners, International, has the responsibility for the management and operation of the National Center for Educational Planning which is one of the major segments of Project Simu-School. The organization's authority will include responsibility for managing, developing and extending the concepts embodied in the project.

The National Center for Educational Planning will receive policy guidance from two sources in developing its management program--The International Board of Directors of the Council of Educational Facility Planners and the National Advisory Board for Project Simu-School. The broad policies for the National Center will be created by the National Advisory Board of Project Simu-School and then be adopted by the International Board of Directors of CEFP. These policy decisions will then move to the management level for the Center where staff provided by CEFP will be responsible for their implementation.

The illustration on page 19 shows the policy-making and management level for the National Center.

The management structure for the National Center will be based on, essentially, five key management positions. The titles and areas of responsibility of these positions are, generally, a follows. (Details of management are not a subject of this paper; therefore, functions performed in each staff position are listed only to establish a broad framework.)

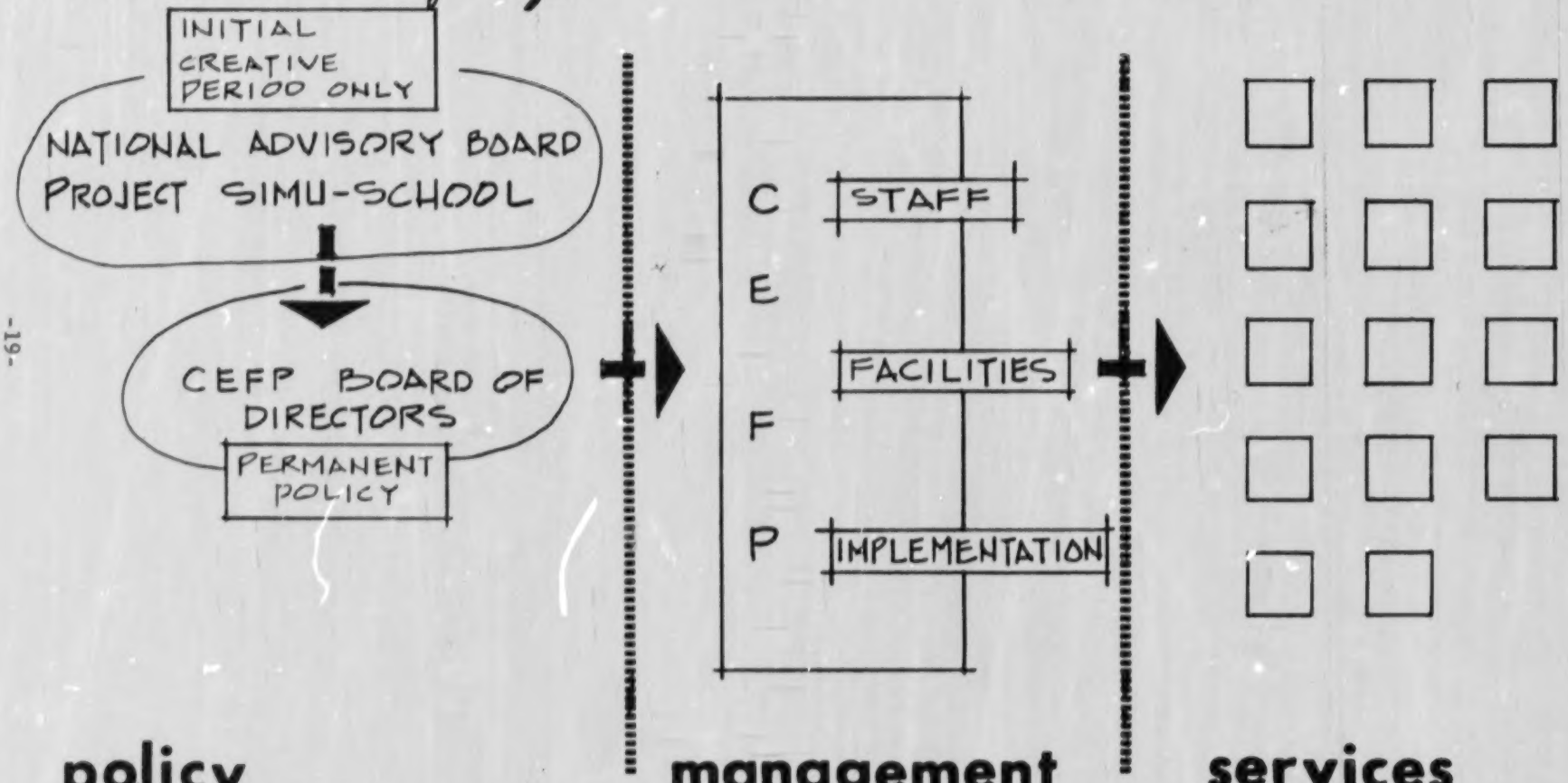
Director of Center

This individual will be the chief administrative officer and will be accountable to the International Board of Directors of CEFP and the National Advisory Board for Project Simu-School. Responsibilities will include:

- Making operational and management decisions.
- Executing all legal contracts.
- Developing recommendations for policy decisions.
- Composing new program.
- Preparing annual budgets.

NATIONAL CENTER FOR EDUCATIONAL PLANNING

How it is organized



- Directing, organizing and employing the Center's staff.
- Maintaining liaison with professional societies, organizations, associations and governmental agencies.
- Coordinating and implementing all services of the Center.

Director of Communications

This individual will report directly to the Director of the Center. Responsibilities will include:

- Establishing a communications system to receive information at the Center and then dispense it to the educational community.
- Establishing and maintaining a library resource center.
- Writing and producing publications.
- Establishing a professional image through excellence in graphic coordination.
- Assisting in identification of resources for implementation of research.
- Identifying needed product development and means for implementing action to pursue such development.
- Establishing and maintaining a communication system with all types of components.

Director of Training

This individual will report directly to the Director of the Center. Responsibilities will include:

- Implementing all aspects of the training services of the Center.
- Maintaining liaison with all institutions involved in training of educational planners.
- Maintaining and operating Simu-School's Game Room at the National Center.
- Developing planning packages.

Director of Programming

This individual will report directly to the Director of the Center. Responsibilities will include:

- Coordinating and directing programming staff.
- Identifying and suggesting new methods of creating simulation tools.
- Acting as chief coordinator in programming matters for component centers.
- Providing technical expertise for simulation personnel.

Business Manager

This individual will report directly to the Director of the Center. Responsibilities will include:

- Coordinating, planning and directing all functions and activities related to management and business practices.
- Supervising and directing personnel in bookkeeping, purchasing, auditing and other business activities.

It is extremely important that one major principle constantly be considered in developing the guidelines for management of the National Center. This consideration is to create an organizational structure as free of bureaucratic characteristics and procedures as possible.

If the Center and Simu-School project are to be of value to educational planners, programs and information must be completely relevant to the existing situation. The Center must encourage constant bombardment of new ideas, and it must be able to react quickly to those ideas. Suggestions and thoughts for activities concerning all aspects of the Center must be able to enter easily and quickly from any source.

Unfortunately, a central organization must be formed to administer this extensive national planning effort. In the initial stages of creation of this central organization, it is essential that policies be established which will eliminate any rigid up and down movement of ideas or dictatorial mandates from one or a few individuals. The Simu-School concept has matured over the past thirty months because its flexible, fluid type of arrangement provided an opportunity for anyone to make suggestions and change the course of events. This same principle must be adhered to in developing and maintaining the central organization.

RELATIONSHIP TO EXISTING AND FUTURE SIMU-SCHOOL COMPONENTS

The National Center for Educational Planning will be the hub of the various activities of Project Simu-School. There will be different types of components located away from the Center, and they will require certain services and guidance. These components are grouped in the following basic categories:

- Developmental Components
- Continuing Components
- General Membership Components

The relationship of these components to the National Center will vary in each instance. Their relationships to the Center will be:

Developmental Components

The Simu-School project will continue to start developmental components. These components will be involved in work tasks related to the development of planning tools and processes used in the total planning package at the National Center for Educational Planning.

The developmental units will function in real planning conditions where ideas developed are under the constant scrutiny of the users. Their work tasks will vary.

The National Center for Educational Planning, through the policies generated by the National Advisory Board for Project Simu-School, will have the responsibility of coordinating the developmental components. The primary thrust of the coordination will be to assure that overlapping does not occur and that work tasks are realistic in consideration of staff, funds and time.

Developmental component projects will generally be funded from sources outside the setting in which they are located. Such funding will continue for each project for an agreed developmental period. The work produced at developmental components will be gathered and itilized by the National Center.

Upon completion of the task assignments of a developmental component, the Center will assist in maintaining it as an ongoing center for planning. It is anticipated that each of the developmental components will ultimately become continuing components.

Three developmental components now exist: one in the Chicago School System, one in the Santa Clara County School System and one in the Dallas School System. Each of the components concentrates on different segments of the planning process, and each is developing methods and tools which will become part of the national planning system.

The Chicago component is dealing largely with planning processes related to facilities; the Santa Clara County project is concerned with the total planning process; and the Dallas component is primarily involved with fiscal aspects of planning for education and educational facilities. These components will continue to function after completion of their task assignments, and new components will be developed to study other segments of the planning process.

A fourth developmental component being generated at this time will probably find its setting in a new town near Dayton, Ohio, and will deal with planning needs related to the creation of an educational system for a large new town development. It is expected that the fifth developmental component will be located in a setting of higher education to develop planning needs at this level. Thus, the developmental aspect will, to a large extent, take place in varied types of settings.

Continuing Components

Continuing components will be, essentially, miniature models of the National Center. Such components could arise simply as an extension of a developmental effort, or they could be planned from the beginning to be a permanently anchored Center for Planning in a major city. In the latter case, the educational setting and the need for planning would be so great in a concentrated area that it would be necessary to establish a permanently anchored continuing component.

A continuing center could be created very rapidly by merely assembling the work of previous developmental components. Such a continuing component would not need to contain all the tools and information found in the National Center for Educational Planning because there would be an ongoing communication link between the continuing center and the National Center.

Many of the planning tools for the continuing components will be in the form of computerized simulations and computerized storage of information, and must of this will simply be on call from the National Center.

As stated, a continuing center might be assembled to serve a city; others might serve a county or a state. Their need would be created by a concentration of planning needs in a given area.

The source of funding for the creation of continuing centers is yet to be determined, and the responsibility for developing the funding requirements and financial arrangements will be in the hands of the National Center for Educational Planning.

It is reasonable to assume at this time, however, that the local educational agency desiring a continuing center will have to provide funds for its creation. The cost of creating such a center would be minimal, though, compared to the cost of developing from scratch such a significant and powerful planning center. The lower cost of creating such planning facilities is part of the step-by-step building process embodied in the concept of the Simu-School project. This will enable many more educational communities to have significant planning centers than is now possible.

General Membership Components

Many school systems, governmental units, organizations, institutions and individuals without local centers will want to obtain information and services from the National Center for Educational Planning, and the Center will serve such groups and individuals through general membership components.

There will be varying degrees of services desired by those utilizing general membership components. One example is the use of documents and papers. Another is use of a continuing catalog of the services and documents available at the National Center. Still another is a direct computer link with the Center through a receiving terminal at the general member component's location.

The charge for contracting these services is yet to be determined. It will be, again, however, the responsibility of the National Center for Educational Planning to establish the financial arrangements for general membership components.

General membership components will generate the primary need for mobile versions of Simu-School. These members will be largely comprised of educational settings where the need is not great enough to create a continuing component. Occasionally, though, there will be concentrated planning needs

that will require a physical component of Simu-School to move to their setting for a certain period of time. Thus, providing mobile units of Simu-School becomes essential for serving the general membership components.

The chart on the following page illustrates the relationship of the three types of Simu-School components.

SIGNIFICANCE OF THE NATIONAL CENTER

Perhaps no challenge facing education today is greater than the need to plan adequately for the future. Effective educational planning is, however, an elusive process.

To make planning work within a community, several conditions must be met:

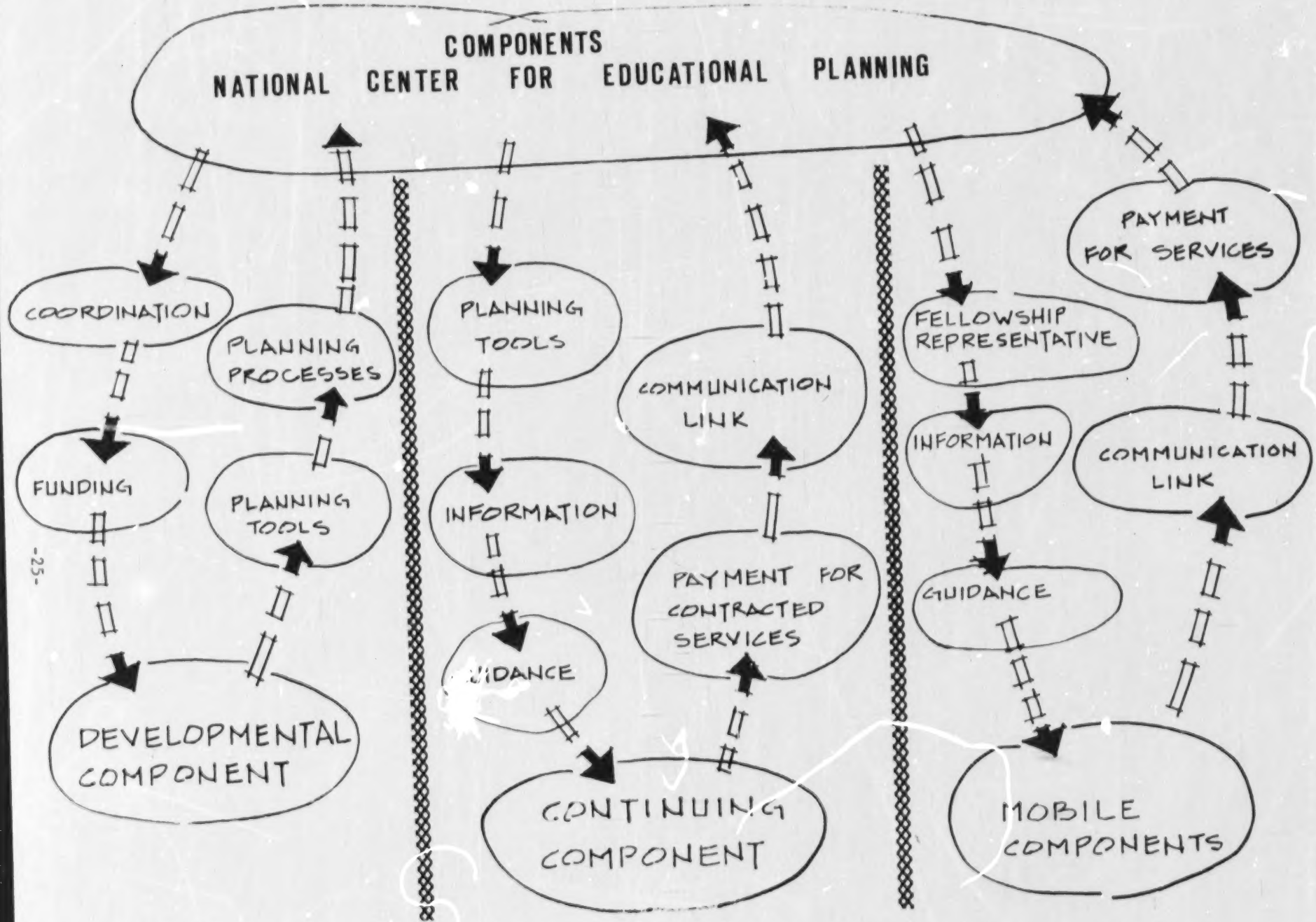
- All elements of the community must be involved in the decision-making process.
- Relevant factors and variables in the socio-economic-political-legal world surrounding the school system must be considered.
- The nature of the learning/teaching process within the existing educational system as well as alternative models of teaching and learning must be known and understood.

Educational planning takes place within a rapidly changing technological society, and current available data must be evaluated if planners are to accurately predict the shape of the educational world several decades in the future. The needs for effective planning are great, and there exists in our country an obvious and long-overdue need for a coordinated system to serve those who engage in educational planning.

There is a vast amount of knowledge concerning education. In most cases, however, this information is in small pieces and widely scattered like a giant jigsaw puzzle. It is essential to good planning that a system be created which can collect this knowledge and assemble it so it can be used effectively in the planning processes for education.

To further complicate the issue of educational planning, shared decision-making is clearly a condition of our times, and improved methods of community involvement in this process are essential. In this regard, perhaps the most difficult task of all is to be able to use the input from a wide variety of people and put it together in a meaningful plan which will advance and improve education and, most of all, prepare it for the future.

The overall management of a planning experience requires the guidance of individuals skilled as expert educational planners. The magnitude of the planning tasks now existing and those we will be facing in the future, will be impossible to cope with without such skilled professional educational planners. A portion of the learning experience for these individuals must be an extensive engagement with <u>real world</u> planning.


COMPONENTS
NATIONAL CENTER FOR EDUCATIONAL PLANNING
COORDINATION
PLANNING PROCESSES
FUNDING
PLANNING TOOLS
DEVELOPMENTAL COMPONENT
PLANNING TOOLS
INFORMATION
UIDANCE
CONTINUING COMPONENT
COMMUNICATION LINK
PAYMENT FOR CONTRACTED SERVICES
FELLOWSHIP REPRESENTATIVE
INFORMATION
GUIDANCE
MOBILE COMPONENTS
PAYMENT FOR SERVICES
COMMUNICATION LINK

It is to these needs that the National Center for Educational Planning addresses itself. Through its coordinated system of components, the National Center will pull together and tackle the above-stated urgent needs. It will accumulate and distribute the knowledge and information needed for improved educational planning. It is, itself, an example of planning. This is the true significance of the National Center for Educational Planning.

PART III

Appendices

A. Task Force

B. National Advisory/Planning Board

C. Publications

APPENDIX A

Simu-School Task Force of the Committee on Architecture for Education, American Institute of Architects

Donald F. Burr, AIA, Chairman, Tacoma, Washington

James A. Clutts, AIA, Dallas, Texas

John B. Rogers, AIA, Denver, Colorado

Dr. John I. Cameron, Honorary AIA, U.S. Office of Education

Dr. Donald J. Leu, Dean, School of Education, San Jose State College

Alan C. Green, Educational Facilities Laboratory, New York City

Simu-School Consulting Panel:

Dr. Robert W. Blanchard, Superintendent of Schools, District No. 1, Portland, Oregon

Dr. Frank A. Brunetti, School Planning Laboratory, Stanford University

Charles Cassell, AIA, Washington, D.C.

Dr. Donald M. Christensen, Superintendent of Schools, Castle Rock, Washington

Dr. August Gold, Consultant, Educational Facilities Laboratory, New York City

Dr. Joseph Hannon, Assistant Superintendent, Facilities Planning, Chicago Public Schools

Dr. Hugh Holloway, Superintendent of Schools, Burnsville, Minnesota

Sterling Keyes, Associate Superintendent for Administration, Finance and Planning, Baltimore City Schools

Milton Miller, Director of Educational Facilities Planning, Grand Rapids, Michigan.

Harry Saunders, Director of School Building Planning, Los Angeles Board of Education

APPENDIX B

A. Directory, Project Simu-School, March, 1974

1. Chicago Component

Chicago Board of Education
228 North LaSalle Street
Chicago, Illinois 60601

Ashraf Manji, Project Manager
Simu-School Center for Urban Educational Studies
28 East Huron Street
Chicago, Illinois 60611
(312) 641-4029

Dr. Joe Hannon, Assistant Superintendent
Director, Project Simu-School
(312) 641-4040

2. Santa Clara County Component

Santa Clara County Office of Education
45 Santa Teresa Street
San Jose, California 95110
(408) 299-3474

Dr. Glenn Hoffmann, LEA Representative, Superintendent of Schools
Dr. Les Hunt, Director, Project Simu-School

3. Dallas Component

Dallas Independent School District
3700 Ross Avenue
Dallas, Texas 75204
(214) 824-1620

Dr. Weldon Wells, LEA Representative, Deputy Asst. Supt.
Dr. K. Ronald Higgins, Director, Project Simu-School

4. Ohio State Component

Dr. M.J. Conrad
Director, Project Simu-School
29 W. Woodruff Avenue
Columbus, Ohio 43210
(614) 422-7700

5. National Advisory/Planning Board

Dr. Weldon S. Wells, Dept. Asst. Supt.
Dallas Independent School District
3700 Ross Avenue, Box 118
Dallas, Texas 75204

Mr. Marvin R. A. Johnson, FAIA
Consulting Architect
Division of School Planning
Department of Public Instruction
Raleigh, North CArolina 27602

Mr. Dean Macris, Assistant Director
Plans - Programs
Department of City Planning
1212 Market Street, Second Floor
San Francisco, California 94102

Dr. Glenn Hoffmann, Superintendent
Santa Clara County Office of Education
45 Santa Teresa Street
San Jose, California 95110

Mr. James A. Clutts, AIA
Clutts and Parker, Architects
2020 Live Oak Street
Dallas, Texas 75201

Mr. Donald F. Burr, AIA, Architect
Donald F. Burr, AIA & Associates
P. O. Box 3403
Tacoma, Washington 98400

Mr. Sterling S. Keyes, Associate Superintendent
Administration, Finance and Planning
Baltimore City Public Schools
3 East 25th Street
Baltimore, Maryland 21218

Dr. Joseph P. Hannon, Assistant Superintendent
Facilities Planning
Board of Education
228 North LaSalle Street
Chicago, Illinois 60601

Dr. Burton Wolin
Vice-President of Administration
State University of New York at Brockport
Brockport, New York 14420

6. National Coordinating Consultants

Dr. Donald Leu
San Jose State University
Education Building, Room 102
San Jose, California 95112

Dr. Rogers L. Barton
Associate Superintendent-Development
Dallas Independent School District
School Administration Building
3700 Ross Avenue
Dallas, Texas 75204

7. Council of Educational Facility Planners, International

Dr. Dwayne E. Gardner
Executive Director
29 West Woodruff Avenue
Columbus, Ohio 43210

8. U.S. Office of Education

Dr. William Chase
National Center for Educational Technology
400 Maryland Avenue, S.W.
Washington, D.C. 20202

APPENDIX C

LIST OF PUBLICATIONS
FROM
PROJECT SIMU SCHOOL

A. Publications Available - January, 1974

The Chicago and Santa Clara County Components have undertaken the preparation of research reports and other documentation of planning processes. The publications available from these two components are shown below.

1. Project Simu School: Chicago Component

   a. Simu-School: The Chicago Component by Joseph P. Hannon, Donald J. Leu, and Ashraf S. Manji. 1971 (Superseded by #e below.)

   b. A Simple Model of Student Flows in an Urban School System Eric G. Moore. 1971

   c. Simulation for Educational Facility Planning: Review and Bibliography by Ashraf S. Manji. 1972

   d. SCHOOLSITE: A Game of Conflict Resolution in School Facilities Planning by Michael K. McCall, G. Scott Rutherford, and Margaret Skutsch. 1972

   e. Simu-School: Center for Urban Educational Planning by Joseph P. Hannon, Donald J. Leu, and Ashraf S. Manji. 1973

   f. Planning for Future Forms of Education: Towards an Educational and Educational Facilities Planning Model by Donald J. Leu. 1973

   g. Charretting the Planning Process by Harold L. Cramer and Robert J. Wehking. 1973

   h. Delphi: Potential Uses in Educational Planning by Margaret Skutsch and Diana Hall. 1973

   i. A Data System for Comprehensive Planning in Education by K. Ronald Higgins and M. J. Conrad. 1973

   j. Orienting Users for New Facilities by Harold L. Cramer. 1973

   k. Pupil-Need Oriented State School Finance System: The Hope of Large City Schools by Lutaf Dhanidina. 1973

1. Educational Facilities Planning in Chicago: Selected Case Studies, edited by Ashraf S. Manji. 1974

m. Systematic Planning of Educational Facilities by Carroll W. McGuffey. 1974

2. Santa Clara County Component

a. Position Papers

(1) Research Report #1 - Simu-School: A "Joint Venture" for Research, Development and Dissemination in Educational Planning, Lester W. Hunt: March, 1974.

(2) Research Report #2 - Decentralizing the "Future Planning" of Public Education, I.C. Candoli and Donald J. Leu: June, 1973.

(3) Research Report #3 - School Planning in a Historical Setting: Santa Clara County, California, Marcella Sherman and others: December, 1973.

(4) Research Report #4 - Housing Patterns in Relation to Educational Achievement, William Baker and Glenn Hoffmann: November, 1973.

(5) Research Report #6 - A Multi-Agency Center for Educational Planning, Don E. Halverson: December, 1973.

(6) Research Report #10 - A Career Development Center, Donald M. Foster and Rick Foster: September, 1973.

(7) A Data System for Comprehensive Planning in Education, K. Ronald Higgins and M. J. Conrad: October, 1973.

b. Planning Techniques

(1) Research Report #8 - Goal Analysis Procedures, Mark Garman and Jane Northall: June, 1973.